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Editorial - Bridge builders?

It is a common weakness of peoples and generations brought up without history to attach undue importance to the discoveries of their own lifetimes. Amid the excitement over DNA and the endoplasmic reticulum and other revelations of the electron microscope and the ultracentrifuge, those of us who are aware we are aging may take comfort in the thought that an insect is still an insect and a plant still a plant and in the assurance that the solid body of knowledge handed down from previous generations, despite the thrilling rate at which it is being added to, remains essentially unassailable. Morphology remains morphology, though its horizon dips to the molecular level, into the limbo designated by that most unfortunate misnomer "ultrastructure".

Physiology remains physiology; it hasn't become biochemistry despite the cinderella status of biophysics and especially biomechanics; the new perspectives in this field do not alter its dependence on morphology. Indeed the revelations of molecular structure serve to emphasize more strongly than ever the necessity for a thorough understanding of structure before functional speculation or even experimentation is indulged in.

Those of us who are not yet aware that we are aging should be discomforted by the reflection that history and aging go hand in hand but that the one repeats itself and the other doesn't. It is, indeed, the repetitions of history which give it the perspective generating quality that makes it an essential part of the study of any subject.

Even a molecular biologist needs a name for a species he works with, and needs in consequence to be aware of the vagaries of names and their application and indeed of the principles of systematics. It makes no more sense at the molecular level than at any other to study the functions of an organ one cannot find, in a species one cannot name. And names, of course, have histories, even if we have decreed that those proceeding further back than 1758 should have academic status only, and

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these histories have a future. It might, in fact, be said that the purpose of most biological work, including that at the molecular level, is to contribute to the future of names. For evolution is no more than the history of life, and both has an end in itself and as a contribution to human welfare, nothing could be more central to biology than a detailed and accurate understanding of the past of evolution. This is the true aim of systematics; its attainment should permit predictions as to faunal future to replace the chaotic mayhem man occasions today. The provision of handles for taxa is but a serendipitous appendage.

Given this grand aim it is doubly unfortunate that biologists should attach to themselves such belittling prefixes as 'micro-' and 'molecular'. Surely better names can be found; perhaps it is even the bearing of these names that contributes to the very evident rift which has developed in recent years between micro-thinking groups in both the traditional and the molecular areas of biology, to the detriment of both. We cannot afford such little luxuries.

There is no better bridge between the macro and the micro than the entomologist; his subjects of study force him into both camps, they are both small enough and hardy enough to be superior subjects for micro and molecular study, and ubiquitous enough and diverse enough in structure, function, and relationships to compel attention from the traditionalist. People come to resemble the subjects of their studies; while we may describe the brains of insects as small, both relatively and absolutely, let us as entomologists stretch ours to build this bridge.

Brian Hocking

CORRIGENDA

P. 209 (Vol. II No. 2). For: Figs. 65-66, read Figs. 65 & 69.
(*C. spetsbergensis*)

For: Figs. 67-69, read: Figs. 66-68.
(*C. thulensis*)